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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,820	05/03/2001	Vladimir Matena	SUN1P294/P5175	7908
22434	7590	05/26/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			CAO, DIEM K	
			ART UNIT	PAPER NUMBER
			2194	
DATE MAILED: 05/26/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/848,820

Applicant(s)

MATENA ET AL.

Examiner

Diem K. Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/22/05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-20 are pending.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raj (Enterprise JavaBeans) in view of Jain et al. (Java Call Control, Coordination and Transaction).

4. As to claim 1, Raj teaches an entity bean class (implementing the enterprise bean; part 5, page 1), a home interface associated with the entity bean class (the EJB home interface; part 5, pages 1-2), the home interface being arranged to create, find, and remove entity objects (the home interface has methods that define how the entity bean is created and located in its container; part 5, pages 1-2, section "Define your EJB Home Interface" and methods for locating, creating, and removing instances of EJB classes are defined in the home interface; part 2, page 2, section "the Home Interface and Home Object"), a remote interface associated with the entity bean class (remote interface ... instances of BooksBean; part 5, page 2, section "Define Your EJB Remote Interface"), the remote interface being arranged to change the state of the bean in response to the input events (The remote interface lists the business methods available for the enterprise bean;

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part 2, page 2, section "The Remote Interface and EJB Object"), and an entity object associated with the entity bean class (bean instances; part 2, page 2, section "EJB Containers").

5. However, Raj does not teach the remote interface being arranged to driver the state machine, and the entity object being arranged to represent an individual state machine, i.e. the state machine is implemented as an entity object. Examiner notes that implement finite state machine as software object is well known and already implemented in the computer art. Jain teaches a finite state machine is implemented as a Java object (The state of a call ... Connection object FSM; page 110, right column, Extend the Connection object FSM to become a richer FSM similar to that for AIN; page 113, 6<sup>th</sup> paragraph), the state of the call can be manipulated only by the accessor methods (The state of a telephone call ... specification; page 110, right column, first paragraph and The state of a call ... to the application; page 110, right column, second paragraph), change in state in response to Java exception and events (The state of a call ... to the application; page 110, right column, second paragraph), and could be implemented using Enterprise Java Bean (Trusted application ... EJB sense; page 112, left column, third paragraph).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Raj and Jain because implementing state machine in Java providing benefit to the users because Java language is portable platforms and Java based technology can be used in the telecommunications services (page 109, left column, first paragraph).

7. As to claim 2, Raj teaches the entity bean class, the entity object, the home interface, and the remote interface are parts of an entity bean (EJB remote interface, EJB home interface, EJB class; part 5, page 1 and bean instances; part 2, page 2, section “EJB Containers”).

8. As to claim 3, Raj teaches the entity bean is an enterprise bean (Enterprise beans ... entity beans; part 3, section Entity and Session Beans, page 3).

9. As to claim 4, Raj teaches the enterprise bean is an Enterprise JavaBean (The Enterprise JavaBean; part 2, section “The Enterprise JavaBean”).

10. As to claim 5, Raj teaches the entity bean is arranged to be deployed in a bean container that is arranged to invoke instances of the entity bean class in response to invocations to the methods of the remote interface (The EJB container manages one or more EJB classes ... invoke the bean’s methods; part 2, page 2, section “EJB Containers”).

11. As to claim 7, Raj as modified teaches the entity bean uses container-managed persistence to maintain a state associated with the state machine (Container-managed persistence; part 3, page 4, section “Entity Beans”).

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12. As to claim 8, Raj as modified teaches the entity bean uses bean-managed persistence to maintain a state associated with the state machine (Bean-managed persistence; part 3, page 4, section "Entity Beans").

13. As to claim 9, Raj teaches the bean container is arranged to receive input events to the entity bean and to dispatch the received input events to the methods of the remote interface (An EJB container acts as ... invoke the bean's methods; part 2, page 2, section "EJB Container").

14. As to claim 10, Raj as modified teaches the remote interface is arranged to define a method for an input event to which the state machine responds (The remote interface lists the business methods available for the enterprise bean; part 2, page 2, section "The Remote Interface and EJB Object").

15. As to method claim 11, it corresponds to the state machine claim of claim 1.

16. As to claims 12-15, see rejections of claims 2-5 above.

17. As to claims 17-20, see rejections of claims 7-10 above.

18. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raj (Enterprise JavaBeans) in view of Jain et al. (Java Call Control, Coordination and Transaction) further in view of Shoffner (Write a session EJB).

19. As to claims 6 and 16, Raj does not explicitly teach the bean container is further arranged to implement a timeout. Shoffner teaches the bean container is further arranged to implement a timeout (the container ... after some timeout period; page 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Raj, Jain and Shoffner because it provides a method for container to remove the beans after a period of time without being used.

***Response to Arguments***

20. Applicant's arguments filed 3/22/2005 have been fully considered but they are not persuasive.

In the remarks, Applicant argued in substance that (1) Jain does not teach or suggest a remote interface associated with the entity bean class, the remote interface being arranged to drive the state machine in response to input events, and (2) Jain is directed to application programming interfaces for Java Telephony while Raj is directed to Enterprise JavaBeans.

Examiner respectfully traverses the Applicant's arguments.

- As to the point (1), Applicant was incorrect when arguing that "by the Examiner, Raj fails to teach or suggest a remote interface associated with the entity bean class". In contract, in the previous Office action, and again in this Office action, Examiner shows that Raj teaches a remote interface associated with the entity bean class (remote interface ... instances of BooksBean; part 5, page 2, section "Define Your EJB Remote Interface"). The limitation "remote interface being arranged to drive the state machine in response to

input events” is taught by the combination of Raj and Jain as set forth in the previous and instant Office action.

- As to the point (2), Examiner noted that most of the limitations such as an entity bean class, a home interface associated with the entity bean class, the home interface being arranged to create, find, and remove entity objects, a remote interface associated with the entity bean class, and an entity object associated with the entity bean class are base structure of Enterprise JavaBeans, and all taught by Raj, the only different is the entity bean is arranged to represent an individual state machine, and the remote interface being arranged to drive the state machine in response to the input event. As set forth in Raj’s reference, and also the fundamental of EJB, the client object cannot directly access the bean object, but through it remote interface. Jain teaches a Connection object represent a finite state machine (The state of a call ... Connection object FSM; page 110, right column, Extend the Connection object FSM to become a richer FSM similar to that for AIN; page 113, 6<sup>th</sup> paragraph), and the system could implemented using the Enterprise JavaBeans technology (page 109, left column, first paragraph and page 112, left column, first paragraph). Therefore, the combination of Raj and Jain teaches all the limitation.

### ***Conclusion***

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**



MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 8:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

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Due to the realignment of WG 2120, effective March 20, 2005, AU 2126 will become AU 2194.

Diem Cao

  
MENG-AL T. AN  
SUPERVISORY PATENT EXAMINER  
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